

I claim:

1. A tumor necrosis-factor inducible promoter, consisting of an isolated nucleic acid sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, and SEQ ID NO:29, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36.
2. An expression vector comprising one or more of the tumor necrosis-factor inducible promoters of claim 1.
3. The expression vector of claim 2 further comprising a polylinker adjacent to the 3' end of the one or more tumor necrosis-factor inducible promoters.
4. The expression vector of claim 2 comprising two or more of the tumor necrosis-factor inducible promoters.
5. The expression vector of claim 4 further comprising a polylinker adjacent to the 3' end of each of the two or more tumor necrosis-factor inducible promoters.
6. The expression vector of claim 2 further comprising a reporter gene operatively linked to the one or more of the tumor necrosis-factor inducible promoters.
7. The expression vector of claim 4 further comprising a reporter gene operatively linked to the two or more of the tumor necrosis-factor inducible promoters.
8. A recombinant host cell transfected with one or more of the expression vector of claim 2.
9. A recombinant host cell transfected with one or more of the expression vector of claim 3.
10. A recombinant host cell transfected with one or more of the expression vector of claim 4.
11. A recombinant host cell transfected with one or more of the expression vector of claim 5.

12. A recombinant host cell transfected with one or more of the expression vector of
claim 6.
13. A recombinant host cell transfected with one or more of the expression vector of
claim 7.
- 5 14. A method for identifying candidate compounds for treating or preventing
autoimmune disorders or cancer, comprising
- a) providing a recombinant host cell according to claim 12;
 - b) contacting the recombinant host cell with tumor necrosis factor alone or
together with one or more test compound under conditions suitable for expression of the
10 reporter gene;
 - c) determining reporter gene expression levels; and
 - d) identifying those test compounds that modify TNF-induced reporter gene
expression, wherein such modification identifies a test compound as a candidate for the
treatment or prevention of autoimmunity or cancer.
- 15 15. A method for identifying candidate compounds for treating or preventing
autoimmune disorders or cancer, comprising
- a) providing a recombinant host cell according to claim 13;
 - b) contacting the recombinant host cell with tumor necrosis factor alone or
together with one or more test compound under conditions suitable for expression of the
20 reporter gene;
 - c) determining reporter gene expression levels; and
 - d) identifying those test compounds that modify TNF-induced reporter gene
expression, wherein such modification identifies a test compound as a candidate for the
treatment or prevention of autoimmunity or cancer.
- 25 16. The expression vector of claim 2 wherein the one or more tumor necrosis-factor
inducible promoter comprises SEQ ID NO:6 and SEQ ID NO:7.
17. The expression vector of claim 6 wherein the one or more tumor necrosis-factor
inducible promoter comprises SEQ ID NO:6 and SEQ ID NO:7.
18. The recombinant host cell of claim 8 wherein the one or more tumor necrosis-
30 factor inducible promoter consist of SEQ ID NO:6 and SEQ ID NO:7.

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19. The recombinant host cell of claim 12 wherein the one or more tumor necrosis-factor inducible promoter consist of SEQ ID NO:6 and SEQ ID NO:7.
20. The method of claim 15 wherein the one or more tumor necrosis-factor inducible promoter consist of SEQ ID NO:6 and SEQ ID NO:7.
- 5 21. A method for identifying candidate tumor necrosis factor inducible promoters, comprising:
- a) aligning a test sequence consisting of a nucleic acid sequence with a comparison sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ
10 ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, and SEQ ID NO:29, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, using a gap opening penalty of
15 50 and a gap extension penalty of 3 to define a test alignment;
- b) shuffling the nucleic acid sequence of the test sequence at least one hundred times, while maintaining its length and composition, to produce a series of randomized sequences;
- c) aligning the randomized sequences with the comparison sequence using a
20 gap opening penalty of 50 and a gap extension penalty of 3, to produce a series of randomized alignments;
- d) determining an average alignment quality of the randomized alignments, wherein the average alignment quality of the randomized alignments represents an alignment expected by chance;
- 25 e) comparing the test alignment with the average alignment quality of the randomized alignments; and
- f) identifying a test alignment with a probability value of less than 0.05 that the alignment is obtained by chance as a candidate tumor necrosis factor inducible promoter.
- 30 22. A method for identifying candidate compounds for treating or preventing autoimmune disorders or cancer, comprising

- a) providing a recombinant host cell according to claim 12;
- b) contacting the recombinant host cell with one or more test compound under conditions suitable for expression of the reporter gene;
- c) determining reporter gene expression levels; and
- 5 d) identifying those test compounds that modify reporter gene expression, wherein such modification identifies a test compound as a candidate for the treatment or prevention of autoimmunity or cancer.

23. A method for identifying candidate compounds for treating or preventing autoimmune disorders or cancer, comprising

- 10 a) providing a recombinant host cell according to claim 13;
- b) contacting the recombinant host cell with one or more test compound under conditions suitable for expression of the reporter gene;
- c) determining reporter gene expression levels; and
- d) identifying those test compounds that modify reporter gene expression,
- 15 wherein such modification identifies a test compound as a candidate for the treatment or prevention of autoimmunity or cancer.